

# Notice of Allowability

Application No.

09/474,025

Examiner

Anh-Vu H Ly

Applicant(s)

KWAK ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendmend filed October 15, 2004.
2. ☒ The allowed claim(s) is/are 1-5, 8-22, and 24-31 renumbered as 1-28.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 5.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David A. Bilodeau on December 07, 2004.

The application has been amended as follows:

***In The Claims***

Claim 1, in line 17, delete "resulting".

Claim 4, in line 3, insert - - - after "device".

Claims 8 and 9, in lines 1-2, replace "ATM signaling processing unit" with - -signal processor- -.

Claim 11, in line 3, replace "ATM network" with - -ATM service- -.

Claim 14, in line 9, replace "and" with - -or- -.

Claim 14, in lines 11 and 14, replace "and the head-end" with - -or the head-end- -.

Claims 15 and 16, in line 4, replace "a terminating" with - -the terminating- -.

Claim 19, in line 1, replace "wherein necessary" with - -wherein a necessary- -.

Claim 21, in line 1, replace "The network communication unit" with - -The apparatus- -.

Claim 25, in line 4, replace "a data" with - -the data- -.

Claim 29, in line 2, replace "multiplies" with - -multiplexes- -.

***Allowable Subject Matter***

2. Claims 1-5, 8-22, and 24-31 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest wherein the central office unit of LMDS comprises a network connection unit for multiplexing and de-multiplexing data stream having ATM cell structure and wherein the network connection unit further comprises a signal processor for setting a virtual channel and a channel speed, and providing an ATM service corresponding to the virtual channel; and a call processor having a MAC controller for controlling user modems according to MAC instructions when the signal processor is operating, as specified in independent claims 1 and 25.

The prior art does not teach or fairly suggest establishing a virtual channel by performing a protocol communication from a first physical layer for prescribing wireless access media, to a second physical layer for providing wireless media control, of the customer premises equipment and either the network connection unit or the head-end unit; connecting a communication path from one of the network connection unit or the head-end unit to a terminating party by performing a protocol communication between an adaption layer for signal processing to a user network interface layer of the CPE and either one of the network connection unit or the head-end unit, as specified in independent claim 14.

The prior art does not teach or fairly suggest a network communication unit of a LMDS wherein the network communication unit comprises a signal processor that establishes a virtual channel to enable bi-directional communication of the data stream with a destination; and wherein the signal processor sets the virtual channel and a channel speed and provides an ATM

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service corresponding to the virtual channel, and the controller accesses user modems according to the medium access control instructions and assigns time slots and channels for communication with the user modems, as specified in independent claim 20.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl



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SUPERVISORY PATENT EXAMINEE  
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12/13/09